

AMENDMENTS TO THE CLAIMS

1. (Currently amended) A process for encapsulating a solution of color reactants of color-reaction systems present in an aqueous emulsion accomplished by means of conventional microencapsulation processes, in which comprising:

dissolving the color reactant is first dissolved in a solvent; and

high speed mixing a non-dissolver, ~~which may insignificantly dissolve the color reactant, is mixed into the resulting solution~~ in an amount that establishes a supersaturated solution ~~into the resulting solution while mixing at high speed;~~

emulsifying the supersaturated solution is ~~emulsified~~ immediately in the aqueous phase while mixing at high speed[[,]]; and

encapsulating the supersaturated solution immediately ~~thereupon the encapsulation is performed;~~

wherein a vegetable oil C₁-C₈ alkyl ester is used as the solvent.

2. (Original) The process of claim 1, wherein a vegetable oil methyl ester is used.

3. (Original) The process of claim 2, wherein a rapeseed oil methyl ester obtained in particular from eruca-acid-rich rapeseed oil is used as the vegetable oil methyl ester.

4. (Original) The process of claim 3, wherein the rapeseed oil methyl ester is used in purified form.

5. (Currently amended) The process of ~~at least 1~~ any one of the above claims, wherein in addition a good solvent, which dissolves the reactants of reaction systems better than the vegetable oil C₁-C₈ alkyl ester is used.

6. (Original) The process of claim 5, wherein aromatic solvents and/or chlorinated paraffins are used as the good solvent having a better dissolving power.

7. (Original) The process of claim 6, wherein alkylated biphenyls, alkylated naphthalenes, alkylated terphenyls, alkylated xylenes, and/or diarylalkane compounds are used as the aromatic solvent.

8. (Currently amended) The process of ~~at least one of the above claims~~ claim 1, wherein a nonaromatic solvent is used as the non-dissolver.

9. (Original) The process of claim 8, wherein an aliphatic and/or cycloaliphatic hydrocarbon is used as the nonaromatic solvent.

10. (Currently amended) The process of ~~at least one of the above claims~~ claim 5 to 9, wherein approximately 0.5 to 4 wt. parts, ~~in particular approximately 1 to 2.5 wt. parts non-dissolver~~, are used per 1 wt. part solvent or solvent mixture.

11. (Currently amended) The process of ~~at least one of the above claims~~ claim 6 to 10, in which comprises using approximately 0.1 to 9 wt. parts, ~~in particular approximately 0.25 to 2 wt. parts~~ vegetable oil C₁-C₈ alkyl ester are used per 1 wt. part good solvent.

12. (Original) The process of claim 11, wherein a basic color-producing substance is encapsulated as a color reactant of color-reaction systems.

13. (Original) The process of claim 12, wherein a lactone derivative, fluorane derivative, phthalide derivative, diphenylmethane derivative, triphenylmethane derivative, oxazin derivative, and/or spiropryrane derivative are used as the basic color-producing substance.

14. (Currently amended) The process of ~~claims~~ claim 12 or 13, wherein N-benzoyl leucomethylene blue and/or an N-alkylcarbazoyldiphenyl methane derivative are also used as color-producing substances.

15. (Currently amended) The process of ~~at least one of the above claims~~ claim 12 to 14, wherein the acid color reactant of the basic color-producing substance is encapsulated.

16. (Original) The process of claim 15, wherein an acidic phenolic compound and/or a zinc-modified salicylic acid derivative and/or acid-activated clay minerals are encapsulated as the acidic color reactant.

17. (Currently amended) The process of ~~at least one of the above claims~~ claim 1, wherein ~~the~~ a coacervation process is used for encapsulation.

18. (Currently amended) Microcapsules for pressure-sensitive color-reaction systems, in particular those obtainable using a process of ~~at least one of the above claims~~ claim 1 to 17, and wherein the respective color-reactant within the microcapsules is present in a supersaturated system that contains a vegetable oil C₁-C₈ alkyl ester as the solvent and ~~in addition to~~ a non-dissolver.

19. (Currently amended) Microcapsules of claim 18, wherein approximately 0.5 to 4 wt. parts, ~~in particular approximately 1 to 2.5 wt. % [sic]~~ non-dissolver is used per one weight part solvent mixture.

20. (Currently amended) Microcapsules of claim 18 or 19, wherein the vegetable oil C₁-C₈ alkyl ester is present in the form of a vegetable oil methyl ester, ~~in particular in the form of comprising~~ a rapeseed oil methyl ester.

21. (Currently amended) The microcapsules of ~~one of claims~~ claim 18 to 20, wherein the supersaturated system also contains a good solvent that dissolves the color reactant better than the vegetable oil C₁-C₈ alkyl ester.

22. (Currently amended) The microcapsules of claim 21, wherein approximately 0.1 to 9 wt. parts, ~~in particular approximately 0.25 to 2 wt. parts,~~ vegetable oil C₁-C₈ alkyl ester are used per 1 wt. part good solvent.

23. (Currently amended) The microcapsules of ~~claims~~ claim 21 or 22, wherein the good solvent is present in the form of an aromatic solvent and/or chlorinated paraffin.

24. (Original) The microcapsules of claim 23, wherein the aromatic solvent is present in the form of alkylated biphenyls, alkylated naphthalenes, alkylated terphenyls, arylated xylenes, and/or in the form of diarylalkane compounds.

25. (Currently amended) The microcapsules of ~~at least one of the above claims~~ claim 18 to 24, wherein the non-dissolver is present as a nonaromatic solvent, in particular in the form of an aliphatic and/or cycloaliphatic hydrocarbon.

26. (Currently amended) The microcapsules of ~~at least one of the above claims~~ claim 18 to 25, wherein a basic color-producing substance is encapsulated as a color reactant.

27. (Original) The microcapsules of claim 26, wherein a lactone derivative, fluorane derivative, phthalide derivative, diphenylmethane derivative, triphenylmethane derivative, oxazin derivative, and/or spiropyrane derivative is encapsulated as a basic color-producing substance.

28. (Currently amended) The microcapsules of ~~at least one of the above claims~~ claim 18 to 27, wherein an acid reactant of the basic color-producing substance of the color-reaction system is encapsulated.

29. (Original) The microcapsules of claim 28, wherein an acidic phenolic compound, a zinc-modified salicylic acid derivative, and/or acid-activated clay minerals are encapsulated as the acidic reactant.

30. (Currently amended) Microcapsules of ~~at least one of claims~~ claim 18 to 29, wherein at room temperature (20°C) the degree of supersaturation of the encapsulated system is at least 5%, ~~in particular at least approximately 30%~~.

31. (Currently amended) The microcapsules of claim 30, wherein the supersaturation is more than 50 wt. %, ~~in particular more than approximately 60 wt. %~~.

32. (Currently amended) The microcapsules of ~~at least one of claims~~ claim 18 to 31, wherein the average particle diameter of said microcapsules lies between approximately 3 and 5, ~~in particular between approximately 3.5 and 4.5 µm~~.

33. (Currently amended) The use of the microcapsules of ~~at least one of the above claims~~ claim 18 to 32 with an encapsulated microdispersion of a basic color-producing

substance, which produces a color by means of the reaction with acidic reactants, in color-reaction papers.